

ABSTRACT OF THE DISCLOSURE

A thin and light optical device satisfactorily separates light components having different properties. A blazed grating is formed on a surface of a flat-plate-shaped transparent substrate, and a separation coating that reflects or transmits incident light according to the properties of the incident light is provided on the blazed grating. The thus obtained optical device offers a function of separating light into reflected light and transmitted light, and also has a function of diffracting or refracting the thus separated light. As the separation coating, a polarization separation film, dichroic film, angle separation film, or chiral nematic liquid crystal layer is used to separate linearly polarized light components having different polarization planes, light components having different wavelengths, light components incident at different angles of incidence, or circularly polarized light components having different rotation directions.